

**REMARKS****INTRODUCTION:**

In accordance with the following, reconsideration of the allowability of the pending claims is respectfully requested.

Claims 1-19 are pending, with claims 18 and 19 having been withdrawn, and with claims 1-17 under consideration.

**REJECTION UNDER 35 U.S.C. §102:**

Claims 1, 2, 6, 7, 13, 14, and 16 stand rejected under 35 U.S.C. §102(b) as being anticipated by Finegan, U.S. Patent No. 5,208,801. This rejection is respectfully traversed.

Finegan sets forth an approach for using two different wavelength light sources, as illustrated in the block diagram of FIG. 1, light source 6a and light source 6b, with one light source producing light at a wavelength for recording data on medium 20 and the other light source producing light at a wavelength for erasing data on medium 20. Co-focus system 10 causes both light beams to propagate to beam splitter 14, filter 16, and lens 18, to be focused on medium 20. Light that is reflected back from medium 20 is reflected in beam splitter 14 to sensor 22 for detection. See Finegan in col. 4, line 50, through col. 5, line 9.

Co-focus system 10 is illustrated in FIG. 4, of Finegan, where the two light sources 6a and 6b transmit light beams to beam splitter 42, which causes both light beams to individually travel along the same path to lens 44 toward medium 20. See Finegan in col. 9, line 33, through col. 10, line 58. It is noted that both light beams are focused on the expansion layer of medium 20. See Finegan in col. 9, lines 37-45.

Thus, Finegan is directed to controlling the focusing of both write and erase wavelength light beams onto the same point on a medium.

Finegan further sets forth that "[r]eading from the media is achieved by using, for example, the write beam operated at a lower power level. Light reflected from the media at this lower power level are detected and processed by sensor 22." See Finegan in col. 5, lines 38-41.

Thus, Finegan sets forth a method of focusing two different wavelength light beams to similar points on a recording medium for proper writing and erasing of data on the medium. To

**read data from the medium only one of the light sources is utilized, such that the light sensor only has to be operational for one type of light source or one light source of a particular wavelength, in this case the write wavelength.**

Conversely, the presently claimed invention is directed to focusing **two different wavelength light sources to a medium for reading** of information from two different types of mediums using a respective wavelength light source.

Specifically, independent claim 1, for example, sets forth “an optical system projecting the first and second laser beams to a signal layer of an optical disk and transmitting **the first and second** laser beams as reflected from the signal layer.”

Further, independent claim 1 also sets forth “an optical detector detecting the first and second laser beams transmitted by the optical system, **the optical detector being optimized with respect to the second laser beam**; and an optical converter converting the first laser beam transmitted from the optical system into the laser beam detectable by the optical detector.”

Thus, since Finegan is directed to a completely different operation, i.e., only focusing two lights of different wavelength, on the same point of an expansion layer of a medium for either writing or erasing operations, Finegan has no need to detect two different types of light beams. Finegan is only directed to reading data from a medium using a single light source.

Therefore, Finegan fails to disclose the claimed optical system projecting onto a signal layer or the transmitting of both the first and second laser beams, as reflected from the signal layer. Finegan also fails to disclose the optical detector detecting **two** light laser beams. Further, since Finegan does not need to detect two laser beams. The sensor can be optimized for the write laser beam, for example, and there is no need of an optical converter to convert the first laser beam into a laser beam detectable by the optical detector.

Thus, it is respectfully submitted that Finegan fails to disclose all/most of the claimed features of independent claim 1. In addition, the remaining independent claims 12 and 13 include at least similar allowable features, with differing scope and breadth, and should be allowable for at least the same reasoning. It is also noted that independent claim 12 specifically claims that an optical spot of the **reflected** laser beams is of a predetermined size, which Finegan obviously does not disclose or suggest. In addition, at least in view of the above, it is

respectfully submitted that claims dependent from independent claims 1, 12 and 13 are also in proper condition for allowance.

It is also noted that claim 13 is improperly rejected under §102, as the rejection proceeds to set forth an obviousness rationale for the modification of Finegan to user "well known" features. Regarding this taking of Official Notice, applicants respectfully request references be produced evidencing the same and references produced evidencing the motivation for modifying Finegan, which the Office Action appears to also be taking Official Notice of.

#### **REJECTION UNDER 35 U.S.C. §103:**

Claims 1, 2, 6, 7, 13, 14, and 16 stand rejected under 35 U.S.C. §103(a) as being obvious over Finegan, in view of Maeda et al., U.S. Patent No. 5,303,221. This rejection is respectfully traversed.

Similar to above, it is respectfully submitted that Maeda et al. fails to disclose all the deficient features which are not disclosed in Finegan, and that it would not have been obvious to modify Finegan to include the features as proffered in the outstanding Office Action.

The Office Action indicates that it would have been obvious to modify Finegan to include "a further splitter ability to separate returning reflected light from a record medium and detect such accordingly and photodetector/photodiode...It would have been obvious to modify the reference of Finegan with the above teaching from Maeda et al., the motivation is to separately detect the returning light from separate light sources."

Maeda et al. sets forth an optical pickup using two different wavelength light beams, from a single laser light source, to read from two different types of mediums. Specifically, light from a single light source is separated into two different wavelength light beams. Since collimator lens 4a and objective lens 5a generate aberration, hologram 11 is used to add negative spherical aberration to the longer wavelength light beam, primarily since spherical aberration increases with longer wavelengths.

Specifically, "the beams of the blue light are focused on the disc 6 at a predetermined spot diameter of the designed diffraction limited performance, because the wave front of the blue light is not converted by the phase hologram 11. The beams of the infrared rays are focused on the disc also at a desired spot diameter of the diffraction limited performance

because of the aberration correction at the phase hologram 11.” Maeda et al. at col. 3, lines 50-57.

Upon reflecting off of the medium, the two light beams of differing wavelength are detected at different positions on detector 10. See Maeda et al. at col. 4, lines 13-17. Maeda et al. also points out in the background that two separate light detectors can be used, where light from one light source of a particular wavelength propagates to one light detector and the light from the other light source of a different wavelength propagates to the other light detector. The separation based upon wavelength is accomplished by using a dichotic mirror, which passes light of at least a particular wavelength and reflects others. See element 7 in FIG. 3 of Maeda et al.

As noted above, Finegan only uses only one of the two light sources, the write laser beam, to read from the medium. There is no need in Finegan to detect both laser beams, as proffered in the Office Action. Similarly, there is no need in Finegan to use the dichotic mirror of Maeda et al., since the detector only needs to detect one light wavelength, the write wavelength.

Further, the Office Action appears to indicate that since Maeda et al. discloses a holographic lens “for its inherent use,” it would therefore be equally applicable in Finegan. However, as noted above, the phase hologram in Maeda et al. is used to add negative spherical aberration to the longer wavelength light beam, while not adding any aberration to the shorter wavelength beam, both before propagating to, or reflecting from, the medium.

Independent claim 12, for example, specifically points out that a holographic lens is used to convert one of the laser beams into parallel rays so as to form an optical spot, with the first and second optical spots being the same size. First, the phase hologram in Maeda et al. is used to add negative spherical aberration, which is not the same as converting a beam into parallel rays. Second, the phase hologram 11 in Maeda et al. is used to generate a beam spot of a particular size different from the beam spot derived from the other light beam, which isn’t modified by phase hologram 11. Thus, the two ‘hologram’ items of Maeda et al. and the presently claimed invention are completely different. It is also noted that Finegan has no need for the phase hologram of Maeda et al. since only one wavelength is used to detect data on the medium.

Alternatively to the outstanding rejection, and for arguments sake, it is also noted that a combination of Finegan and Maeda et al. still would not disclose the presently claimed

invention. The presently claimed invention sets forth, for example in independent claim 1, an optical detector optimized with respect to the second laser beam and an optical converter to convert the first laser beam into a beam detectable by the detector. Thus, the presently claimed invention requires a light detector to detect both light beams, for the detector to be optimized for only one of the light beams, and the other light beam having to be converted to be detected. Maeda et al., when using a detector for both light sources, fails to optimize the light detector for one of the light sources, and in either case fails to disclose the claimed optical converter. Thus, even a combination of Finegan and Maeda et al. would fail to disclose the presently claimed invention.

Lastly, it is noted that the outstanding rejection indicates that certain features may be well known, and therefore obvious to combine the same with Finegan. However, even if each particular feature is proven to be well known, there must still be itemized motivation rationale why one skilled in the art would modify Finegan to include such items.

Similar to the above discussion of independent claim 1, the remaining independent claims 12 and 13, which claim similar features with differing scope and breadth, should also be allowable. For example, independent claim 12 requires the claimed holographic lens and that the beam spot be the same size. Similarly, independent claim 13 sets forth the claimed converting, which is also allowable.

Therefore, for at least the above, it is respectfully requested that this rejection be withdrawn and independent claims 1, 12 and 13 be allowed. For at least similar reasons, it is respectfully requested that claims depending from independent claims 1, 12 and 13 also be allowed.

Claims 1, 2, 6, 7, 13, 14 and 16 stand rejected under 35 U.S.C. §103(a) as being obvious over the acknowledged prior art (Prior Art) (either Figure 1 or 2 as submitted) further considered with Maeda et al. This rejection is respectfully traversed.

As pointed out above, independent claims 1, 12 and 13 set forth particular features that are not in either Prior Art or Maeda et al. Particularly, independent claim 1 at least requires the optical detector, which detects both laser beams, to be optimized to the second laser beam, and further requires the claimed optical converter, which is not disclosed or suggested in either Prior Art or Maeda et al. Similarly, independent claim 12 at least requires the claimed

holographic lens and that the beam spot be the same size, and independent claim 13 at least sets forth the claimed converting. As noted above, these features are not disclosed or suggested in Maeda et al. Further, Prior Art also fails to disclose or suggest these features. Therefore, a combination of Prior Art and Maeda et al. cannot disclose these claimed features, even when each are taken as a whole.

Therefore, for at least the above, it is respectfully requested that these rejections be withdrawn and claims 1, 2, 6, 7, 13, 14 and 16 be allowed.

Claims 3, 4 and 15 stand rejected under 35 U.S.C. §103(a) as being obvious over all above rejections, and further in view of the Official Notice/acknowledge prior art. This rejection is respectfully traversed.

It is respectfully submitted that claims 3, 4 and 15 are at least allowable for their dependence from allowable base claims.

In addition, it is respectfully pointed out that the outstanding rejections would appear to be improper according to current case law and MPEP guidelines. To make a prima facie obviousness case, evidenced motivation must be provided indicating why one skilled in the art would modify an existing reference in view of another reference. In addition, is also improper to base a rejection on the claimed feature being merely a design choice. See *In re Garrett*, 1986 Pat. App. LEXIS 8 (Bd. Pat. App. 1986), where the U.S. Patent and Trademark Office Board of Patent Appeals and Interferences ("Board") specifically stated: "the examiner has not presented any line of reasoning as to why the artisan would have been motivated to so modify the...structure, and we know of none. The examiner's assertion...that the proposed modification would have been "an obvious matter of engineering design choice well within the level of skill of one of ordinary skill in the art" is q conclusion, rather than a reason." Similar discussions can be seen in *In re Chu*, 36 USPQ2d 1089 (Fed. Cir. 1985).

The present rejection rationale indicates that the use of a second collimating lens "is considered merely a duplication of parts, with no unexpected results." Similar to above, it is respectfully submitted that this reference to a duplication of parts without an unexpected result is merely a conclusion, without any support or rationale. Further, the outstanding rejection also falls under the above discussion of "design choice," since the outstanding rejection appears to be arguing that the use of two collimating lens is merely a design choice, and is likewise

improper. It is also noted that the outstanding rejection fails to take into account the particularly claimed features of this second collimating lens.

Lastly, it is respectfully submitted that the outstanding rejection fails to follow MPEP guidelines. The outstanding rejection is unclear as to which references are being combined and why/how they are particularly combined. A prima facie obviousness rejection requires specificity of all claimed features and the underlying motivating rationale for modifying a reference to disclose the same.

Claims 5 and 8-11 stand rejected under 35 U.S.C. §103(a) as being obvious over the art as applied to claim 4 above, and further in view of Kajiyama et al., U.S. Patent No. 6,181,668. This rejection is respectfully traversed.

It is respectfully submitted that claim 5 and 8-11 are at least allowable for depending from allowable base claims. In addition, it is further submitted that the outstanding rejection fails to meet a prima facie standard since no motivation or rationale, other than the aforementioned 'design choice', has been provided for the rejection of claim 5. Further, no support has been provided pointing out how or why the holographic lens of Kajiyama et al. would be applicable in the aforementioned combination. Like above, the outstanding rejection is also unclear as to what/how underlying combination(s) are being modified.

Claim 12 stands rejected under 35 U.S.C. §103(a) as being obvious over Prior Art or Finegan each further considered with Maeda et al. or considered with Maeda et al. and Kajiyama et al.

Similar to above, the outstanding rejection is unclear. The rationale provided fails to particularly point out how or why each underlying reference (Finegan or Prior Art) is modified in view of either Maeda et al. or Kajiyama et al.

In addition, the Office Action again indicates that although two collimating lenses are not disclosed in a reference, "the examiner considers the use of two such elements as an obvious design ability-duplicative of parts." Similar to above, this rationale is insufficient.

Further, similar to above, the Office Action indicates that the phase hologram of Maeda et al. discloses the claimed holographic lens. At least in view of the above discussion regarding the extensive differences between the same, it is submitted that phase hologram of Maeda et al. cannot be considered the same as the claimed holographic lens.

Lastly, it is respectfully submitted that the Office Action is basing the outstanding rejection on impermissible hind sight. The present claim specifically claims that the beam spots are the same size, and the Office Action is forcibly interpreting a Maeda et al. and Kaiiyama et al. combination to disclose the same. The Office Action indicates that identical spot sizes are inherently provided for since the elements recited in the claim yield such. However, the claims cannot be used to provide motivation for their own rejection. Further, the Office Action indicates that since Maeda et al. and Kaiiyama et al. set forth varying the spot size "in accordance with the pattern upon the holographic lens as desired by applicant, e.g., it makes sense to have the projected spot size of the laser beams identical to permit proper signal detection by the optical detectors." However, as pointed out above, it is improper to use the "the pattern upon the holographic lens as desired by applicant" as a basis for substantiating a rejection of claims based upon the same. Disclosure and motivation cannot come from the present application. Further, similar to the above, this determination is merely a conclusion, without any evidenced rationale. Lastly, as pointed out above, the beam spots in Maeda et al. are specifically not the same size, thereby invalidating this Office Action proffered analysis.

Therefore, for at least all of the above, it is respectfully requested that this rejection of claim 12 be withdrawn and claim 12 be allowed.

#### **CONCLUSION:**

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.



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If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.


Respectfully submitted,

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